



Cromemco
Specialists in computers and peripherals

NEWS

FOR DEALERS •
DISTRIBUTORS

Cromemco, 2432 Charleston Rd., Mountain View, Ca. 94043 (415) 964-7400

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THANK YOU

This new newsletter is intended to help you build sales and deal with customer needs and questions. We will give you advance notice of new products, bring you technical notes about Cromemco products, and announce new software packages as they appear.

There are a number of new Cromemco products upstream and you will surely want to know about them as early as possible.

We appreciate your efforts in behalf of Cromemco and will be glad to deal with any questions you may have or with matters you may feel should be brought to the notice of other dealers/distributors.

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TWO IMPORTANT NEW PRODUCTS

NEW Z-80 CPU CARD - Two significant new products are now being introduced and will be ready for shipment in volume in early November. The first is our new Z-80 CPU card. The second is our new joystick console. First ads for the CPU card will be in the October issue of BYTE. The joystick console will be introduced in the November BYTE.

The Z-80 CPU card is exciting. Please note that its performance and features are absolutely unequalled in the industry -- by anyone.

To start with, ours is the only CPU card to use a selected, high-speed version of the Z-80 microprocessor -- a version that can operate at a clock rate of 4 MHz. What's more, a switch on the Cromemco card lets the user select either 2 MHz or 4 MHz operation (2 MHz so that he can be compatible with older circuits).

The Cromemco CPU is plug-compatible with the Altair 8800 and IMSAI 8080. All the user need do is remove the present CPU and plug in the new Cromemco unit.

Here are some other features that our engineers have designed into the unit. One is that it will jump to any desired 4K boundary in memory when power is turned on. That does away with a lot of switch flipping that can otherwise be needed for the user to begin his program. Customers will appreciate this feature.

Another convenience is that the new card has jumper-wire-selectable wait states. This is important to your customer because it lets him know he can always use his present (slower) memory or I/O even if he's using the 4 MHz clock rate.

Of course, there are more features yet. See the ad reproduced on page 4.

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NEW JOYSTICK CONSOLE - Cromemco's new joystick console is low in cost but high in saleability. It gives the user what he's needed to be able to do interesting things with his computer -- not only games but even technical and industrial tasks if he uses other products from the Cromemco line.

The Cromemco joystick is a console as discussed below. Either a single console or two of them can be quickly and easily interfaced to a computer by the Cromemco D+7A analog interface board. Then, by using the Cromemco Dazzler™ to put the display on a color TV set, the user can get into any number of exciting applications.

(continued on p.2)

Be sure your customers know there is a speaker and speaker amplifier in the console (additional features and engineering like this put Cromemco products in a class by themselves). The speaker and amplifier let the customer have sound effects (as with games) or audible warnings.

Also, the JS-1 console has 4 pushbutton switches. With these the user can arrange to select colors on a color graphics display or to do any number of other desired tasks.

An ad on the new joystick is shown on page 3. It includes a helpful block diagram to show customers how various Cromemco products can be combined to give him a complete functional system.

* * *

NEW HIGH-SPEED MEMORIES - We are presently finalizing the design of a high-speed RAM memory that can keep up with our fast CPU card even at 4 MHz operation. We will be introducing two new memory boards in the next 90 days. One is a 4K board, the other 16K. We'll keep you informed of progress on these.

* * *

THE NEW Z-1 COMPUTER - Having the Z-80 CPU card and the high-speed memory boards has enabled us to produce a complete microcomputer system -- the Cromemco Z-1. We have chosen the highly-regarded IMSAI mainframe and power supply (with a full set of sockets and card guides) to accommodate the Z-1.

The Z-1 is completely built and tested -- and available only that way. It includes 8K of RAM, a BYTESAVER board with 1K monitor in PROM, an RS-232 interface, and of course our Z-80 CPU.

The Z-1 fits in well at the high end of the hobbyist market AND it is a basic tool for engineers in the industrial market.

The Z-1 is an important development for your serious customers. Such customers may not have time or inclination for kits -- they don't wish to experiment with assembling items from a variety of manufacturers -- they don't want to be in a cross-fire between manufacturers as to whose assembly or item doesn't work. They want to have confidence in the microcomputer and they want it to be guaranteed to work (we make that guarantee). Industrial and commercial people also may lose money in assembling parts. Bring the Z-1 to their attention.

* * *

DAZZLER SOFTWARE CONTEST EXTENDED - People's Computer Company and Cromemco have decided to extend the deadline of the Dazzler Software Contest to Dec. 31, 1976. This extension offers a chance for customers to complete interesting programs that would otherwise be unfinished by the deadline.

The software contest is an opportunity to win a substantial prize and have software published by PCC for others to enjoy. Encourage Dazzler customers to send their entries to PCC, P.O. Box 310, Menlo Park, CA 94025.

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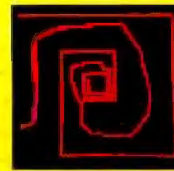
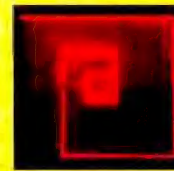
NEW SOFTWARE - A new version of Dazzlewriter is now being distributed. It's a version that produces a full 16 lines of 32 characters per line. (Dazzlewriter is the software that produces alphanumeric displays (in color) with the Dazzler.)

With this new Dazzlewriter we feel that the Dazzler becomes competitive with TV typewriter displays for general alphanumeric displaying.

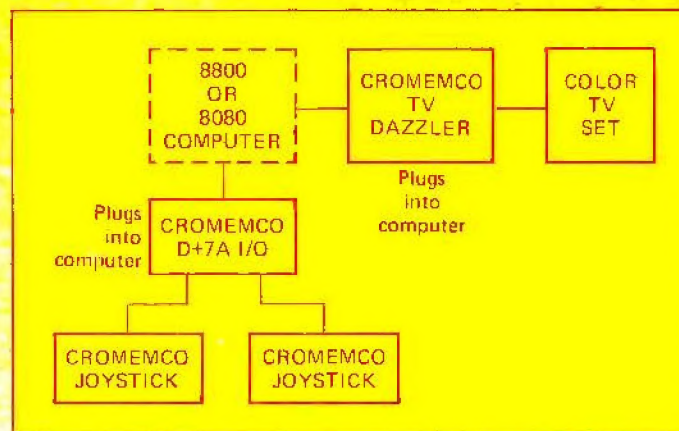
Three new Dazzler programs have been developed to demonstrate the usefulness of our new joystick console. The new programs (CHASE!, DAZZLE-DOODLE, and TRACK) will be available for shipment by the end of October.

A NEW INDUSTRY DEVELOPMENT -- THE S-100 BUS - Cromemco products were well-displayed (and well-received) at the Atlantic City convention in August. At the convention several manufacturers agreed upon a name for the Altair/IMSAI/Cromemco/Processor Tech/etc., 100-line computer bus.

The name chosen for the standardized bus is "Standard 100" or "S-100" bus. It is a name that emphasizes its significance. You will be hearing more about the S-100 in the future. It is an important step in the industry.



You get more games, more fun, more computer uses with this new joystick



AND THERE'S AN EASY WAY TO INPUT IT TO YOUR COMPUTER

You'll get a lot more fun out of your computer with this new joystick.

But note that it is not just an ordinary joystick — it is a console. It has a 2-axis joystick and contains a speaker and speaker amplifier. You can have sound with your games or, say, warning sounds in other applications. Or have your computer talk to you.

Gives you sound, too



Four pushbuttons



A third feature you get is four pushbutton switches. These give you even more possible uses such as selecting various colors on a color graphics terminal.

EASY TO COUPLE

To couple the new joystick to your computer, just use our D+7A™ I/O board. It will couple not only one but two consoles to your Altair™

8800 or IMSAI 8080. And you'll still have several analog channels left over (and one 8-bit output port).

The D+7A plugs into the Standard 100 (S-100) bus of your Altair or IMSAI computer.

EASY TO DISPLAY

Displaying the joystick outputs with the software below is also easy. Just use our TV DAZZLER™ board. It also plugs into the S-100 bus.

NEW SOFTWARE

Here's some new Cromemco software for the joystick (to display, use DAZZLER interface):

CHASE! (2 persons, 2 joysticks): the cross chases the circle. The vertical bars move downward to add more fun to the chase. Score and remaining time kept automatically.

TRACK (1 person, 1 joystick): move the dot to the center of the spiral without touching the spiral's arms.

DAZZLE DOODLE (1 person, 1 joystick): lets you draw pictures in 4 colors on your color TV terminal using the joystick.

STORE/MAIL

Cromemco wishes you more fun, more use from your computer. Get this new joystick console and other Cromemco peripherals at your computer store or order from the factory.

Joystick console kit (Model JS-1K)	\$ 65
Joystick console assembled (Model JS-1W)	\$ 95
D+7A I/O kit (Model D+7A-K)	\$145
D+7A I/O assembled (Model D+7A-W)	\$245
TV DAZZLER kit (Model CGI-K)	\$215
TV DAZZLER assembled (Model CGI-W)	\$350

SOFTWARE

(Punched paper tape with documentation)

CHASE!	\$15
TRACK	\$15
DAZZLE DOODLE	\$15

PROMPT SHIPMENT

Mastercharge and BankAmericard accepted with signed order. Please show complete card number and expiration date.

Mail orders shipped prepaid if fully paid with order. Purchase orders accepted subject to credit approval.

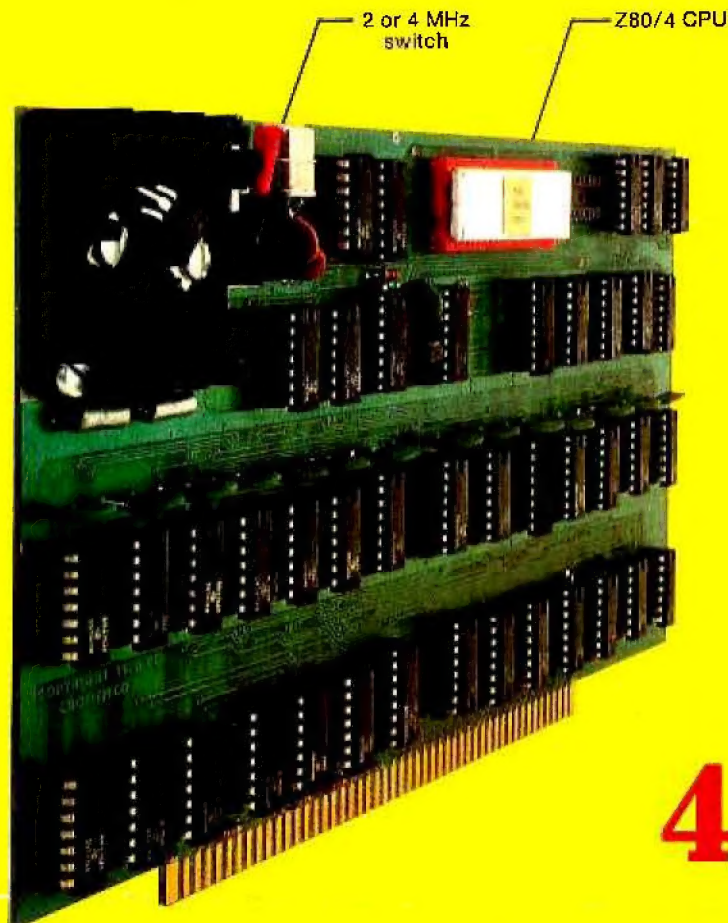
California users add 6% sales tax.



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2432 CHARLESTON RD., MOUNTAIN VIEW, CA 94043 • (415) 964-7400



The only CPU card to give you 4 MHz speed

2 - 5X MORE THROUGHPUT

Here is by far the most powerful CPU card now available.

It's Cromemco's new ZPU™ card. It uses the slick new Z-80 chip — in fact, it uses the even faster Z80/4 high speed version of the Z-80 — and it's the *only* card that does. The Z80/4 is **certified** by its manufacturer for 4 MHz operation.

The Z80/4 has all the advantages of the 8080 and 6800 — and enormously more.

And Cromemco's new ZPU **does** enormously more.

4 MHz CLOCK RATE

First, the ZPU lets you choose either a 2 or 4 MHz crystal-controlled clock rate. Right away that means you can have twice the throughput. Cuts program running time in half. Then the instruction set of the Z80/4 reduces software even more.

The 2 or 4 MHz clock rate is switch-selectable as shown in the above photo.

POWER-ON MEMORY JUMPS

Cromemco's ZPU also has some neat design innovations of its own.

For example, you'll like the simplified operation you get because upon power turn-on the ZPU will jump to any desired 4K boundary in memory. No switch flipping to go through to begin your program.

SELECTABLE WAIT STATES

Cromemco engineers have also arranged that your present systems will always be useful with the new ZPU. To do this, the ZPU has been designed to have jumper-wire-selectable wait states on the card.

These simplify interfacing with your present memory or I/O even at 4 MHz operation.

80 ADDITIONAL INSTRUCTIONS

You've probably heard that the Z-80 with its 80 new additional instructions is by far the most powerful chip around. It's true.

That means with the ZPU you will be able to devise much more powerful (as well as faster) software than before.

ALTIR/IMSAI COMPATIBLE WITHOUT MODIFICATION

Yes, the new ZPU is plug-com-

patible with the Altair 8800 and IMSAI 8080. Just remove the existing CPU, plug in the ZPU card, and you're up and running.

Further, the Cromemco ZPU is the only card guaranteed to work with all present and future Cromemco peripherals. (Cromemco manufactures the popular BYTESAVER™ memory, the TV DAZZLER™, the D+7A™ analog interface board, a joystick console, and others.

INCLUDES FREE SOFTWARE

The ZPU comes with our powerful Z-80 monitor, complete documentation, source code, and paper tape object code. The monitor is also available in PROM (\$75) for use in our BYTESAVER memory board.

STORE/MAIL

The new ZPU is available as a kit or assembled. Look into it now because you can see demand will be strong. Present delivery is 30 days.

ZPU kit (Model ZPU-K).....\$295

ZPU assembled
(Model ZPU-W).....\$395

California users add 6% sales tax.



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